

BRDTC143EKAQ

Rev.B Nov.-2024



DATA SHEET

9 146

Silicon NPN Digital transistor in a SOT-23 Plastic Package.

6

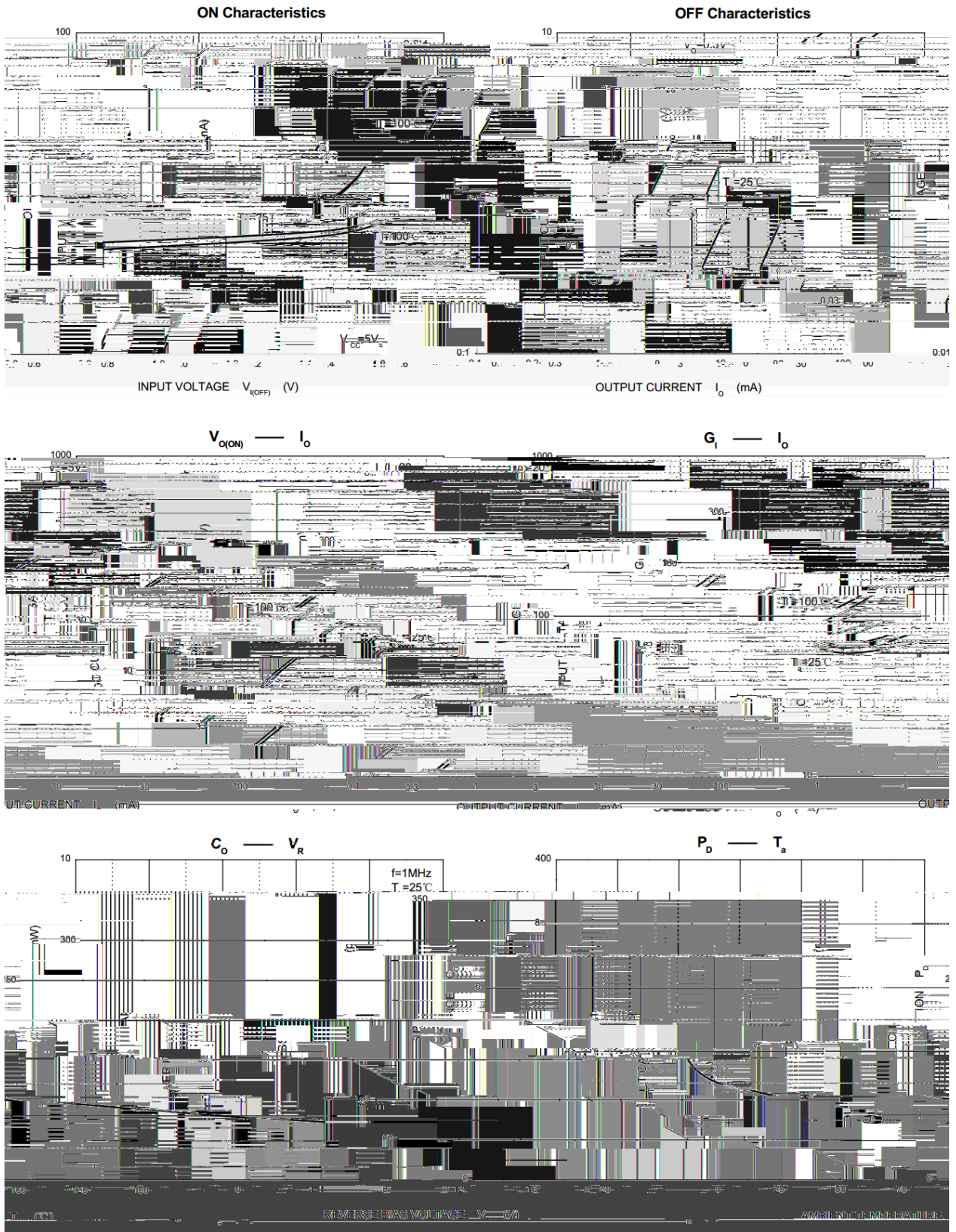
Table 1 / Absolute Maximum Ratings(Ta=25 ;)

Parameter	Z Symbol	Rating	% Unit
Supply Voltage	V _{CC}	50	V
Input Voltage	V _{IN}	-10~30	V
Output Current	I _o	100	mA
Power Dissipation	P _D	200	mW
Junction Temperature	T _j	150	
Storage Temperature Range	T _{stg}	-55 150	

Table 2 / Electrical Characteristics(Ta=25 ;)

Parameter	Z Symbol	Test Conditions	4 Min	" Typ	Ý Max	% Unit
Input Voltage(OFF)	V _{I(off)}	V _{CC} =5.0V I _o =0.1mA	0.5			V
Input Voltage(ON)	V _{I(on)}	V _O =0.3V I _o =20mA			3.0	V
Output Voltage	V _{O(on)}	I _o =10mA I _I =0.5mA		0.1	0.3	V
Input Current	I _I	V _I =5.0V			1.8	mA
Output Cut-off Current	I _{O(off)}	V _{CC} =50V V _I =0			0.5	A
DC Current Gain	G _I	V _O =5.0V I _o =10mA	20			
Transition Frequency	f _T	V _{CE} =10V I _E =-5.0mA f=100MHz		250		MHz
Resistance1	R ₁		3.29	4.7	6.11	K
Resistance Ratio	R ₂ /R ₁		0.8	1.0	1.2	

Electrical Characteristic Curve



BRDTC143EKAQ

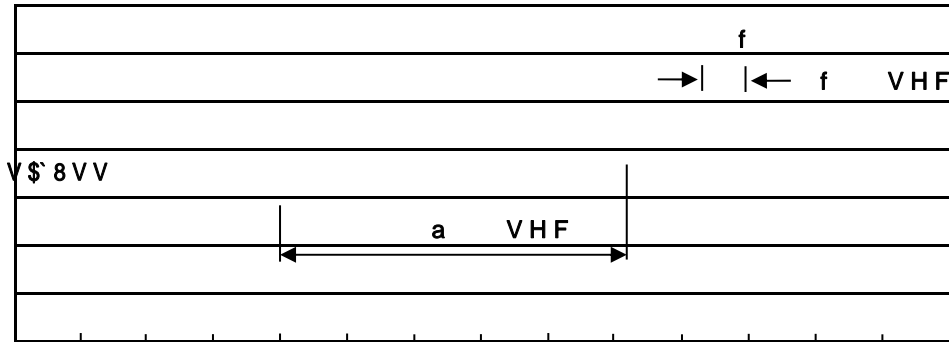
BRDTC143EKAQ

Rev.B Nov.-2024



DATA SHEET

šWD t...•Žç (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6



- Note:
- 1. Preheating: 150~200°C, Time: 60~120sec.
 - 2. Peak Temp.: 255 r5°C, Duration: 5 r0.5sec.
 - 3. Cooling Speed: 2~10°C/sec.

Resistance to Soldering Heat Test Conditions

Temp.: 260±5°C, Time: 10±1 sec.

Packaging SPEC.

REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7 T x 8	180x120x180	390x385x205

Notices